Appendix AM

Summary of U.S. Forest Service Southwestern Region National Forest Northern Goshawk Surveys and Monitoring.

Appendix AM

Summary of U.S. Forest Service Southwestern Region National Forest Northern Goshawk Surveys and Monitoring

National Forest Surveys and Monitoring:

National Forests in the Southwestern Region have been monitoring northern goshawks for over 10 years. Beginning in 1991 a standardized protocol became available for conducting goshawk surveys. This protocol included standard procedures for timing, intensity and duration of goshawk surveys.

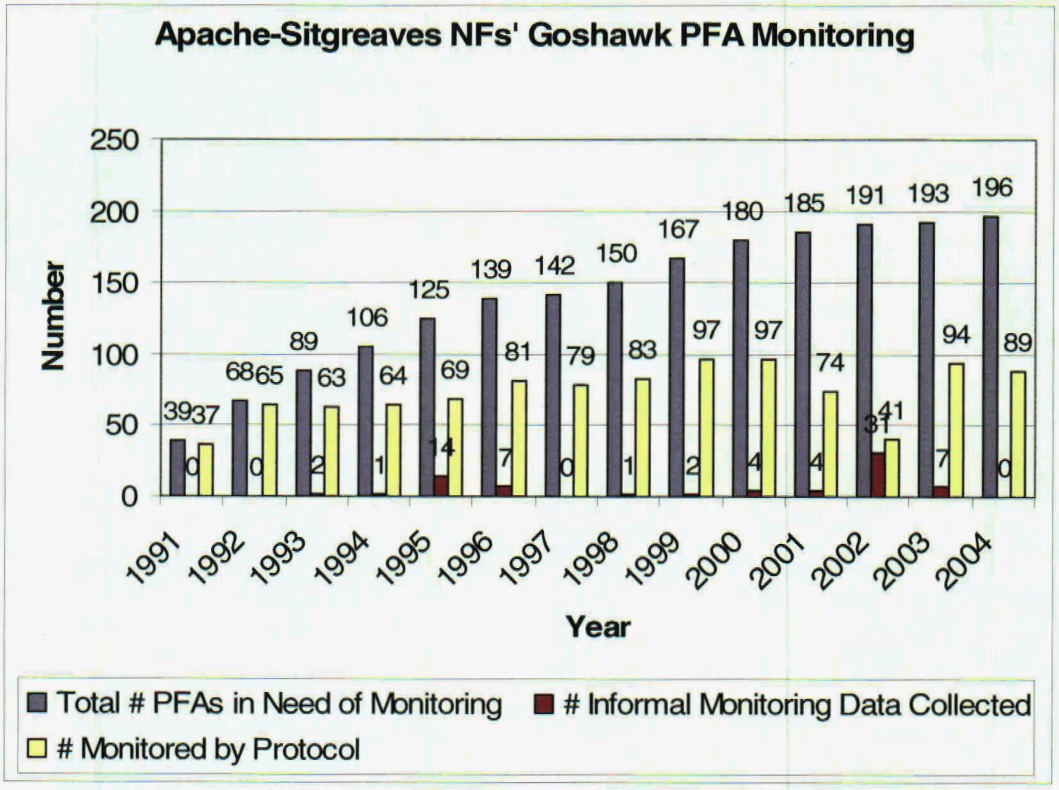
The data displayed in Appendix AM is summarized for each national forest in the Southwestern Region beginning in 1991 and ending in the 2004 field season.

As reported in Reynolds *et al.* (2003) northern goshawk productivity on many national forests in the region was down during the drought. The summarized information is reported by post family-fledgling area. The post family-fledgling area is described on page 13 of the NGMR (Reynolds *et al.* RM GTR 217, August 1992).

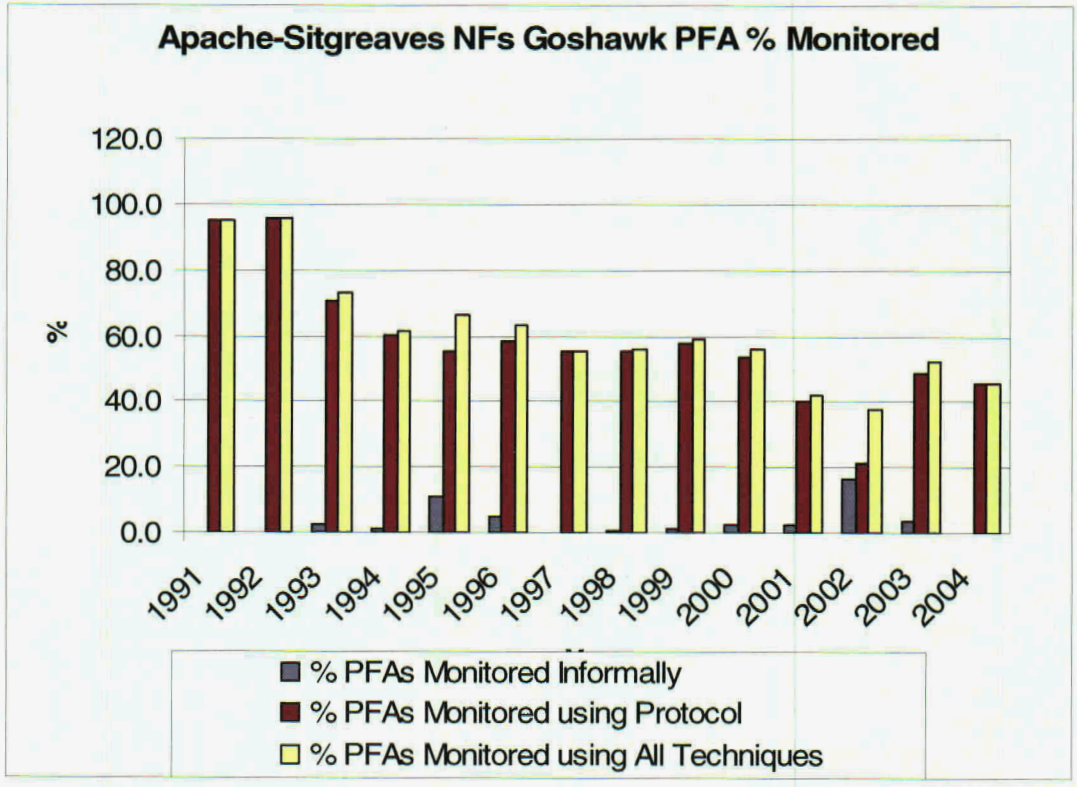
Apache-Sitgreaves National Forest:

The number of designated post-fledging areas on the Apache-Sitgreaves National Forest has risen from 39 in 1991 to 196 in 2004 (Table 1). From 1991 to 2004 the number of post-fledging areas monitored to protocol has (Table 2) remained fairly constant while the percentage of post-fledging areas monitored has decreased due to the increasing number of post-fledging areas designated. Table 3 shows a decreasing trend in the number of occupied nests that fledged young, the number of nests occupied and the number of nests with a detection of at least one bird. In 1992, 35 of 68 post-fledging areas produced young while only 9 of 191 post-fledging areas produced young in 2002.

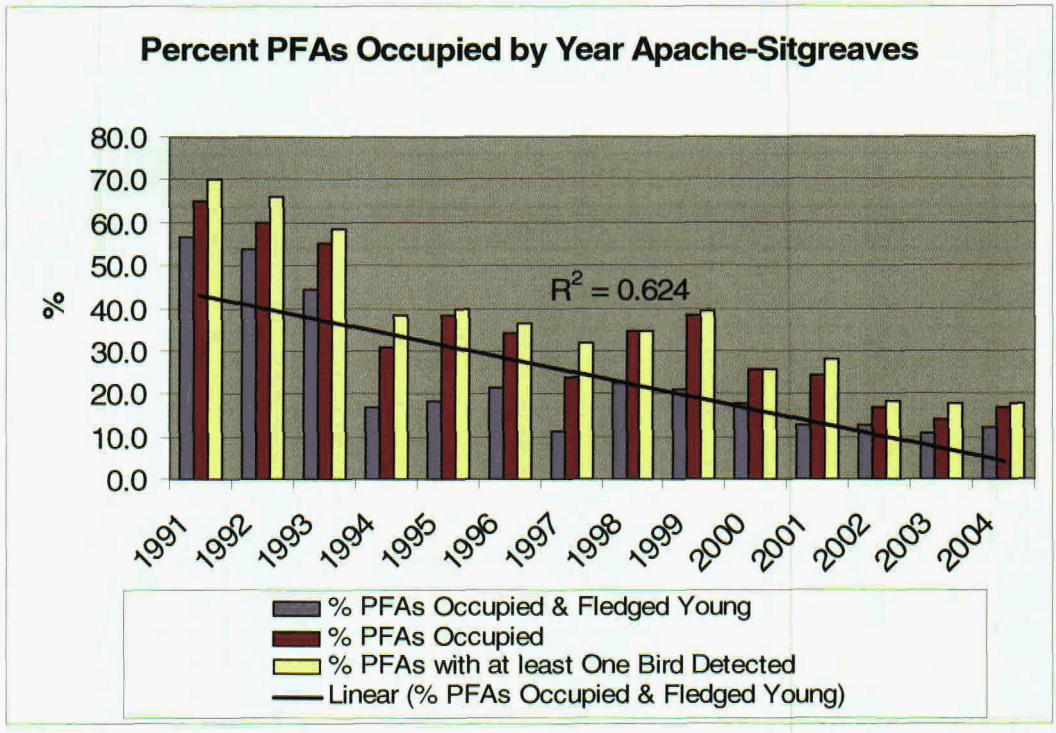
Apache-Sitgreaves Table 1



Apache-Sitgreaves Table 2



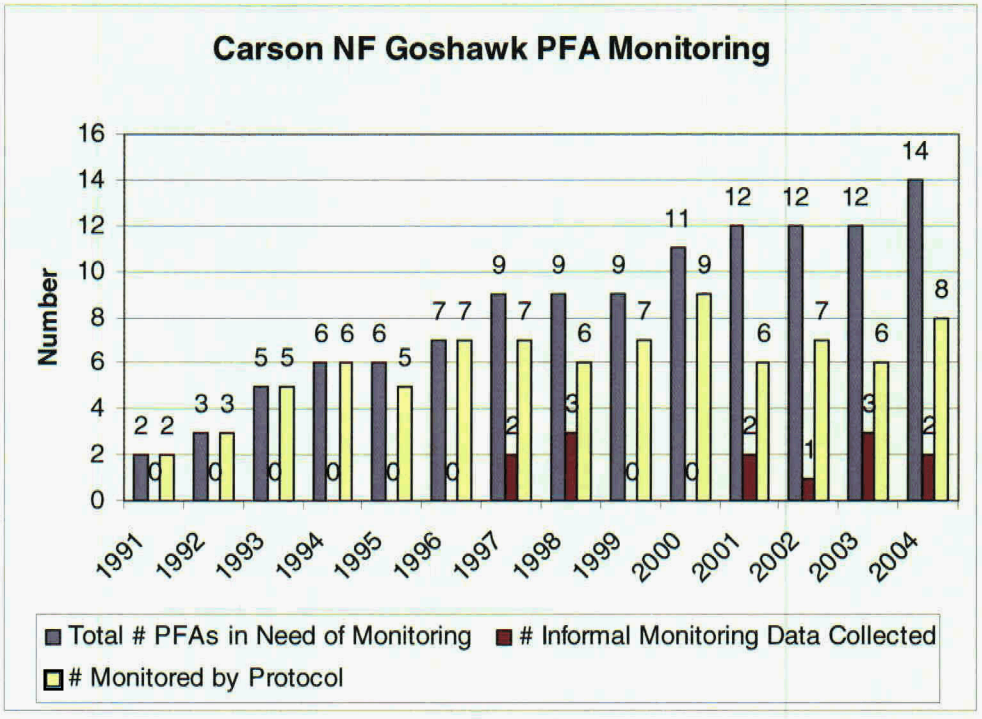
Apache-Sitgreaves Table 3



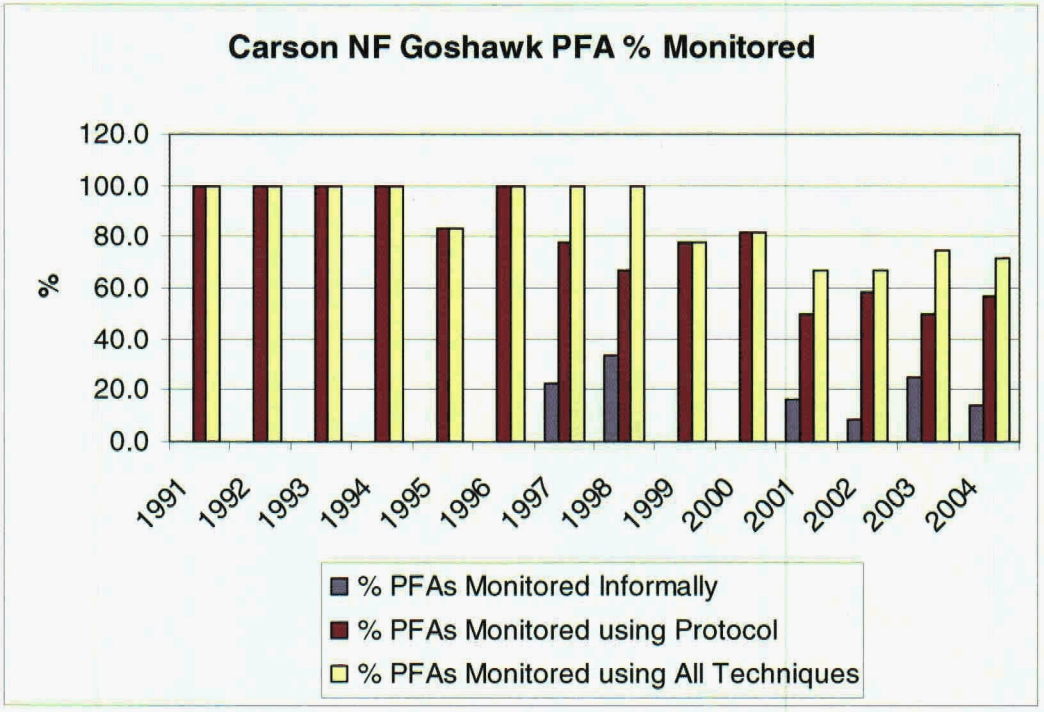
Carson National Forest:

The number of designated post-fledging areas on the Carson National Forest has risen from 2 in 1991 to 14 in 2004 (Table 1). From 1991 to 2004 the number of post-fledging areas monitored to protocol has decreased slightly (Table 2). There is a widely varying trend over time in the number of occupied nests that fledged young, the number of nests occupied and the number of nests with a detection of at least one bird. In 1996, 4 of 7 post-fledging areas produced young while 0 young were produced in 1994 (of 6 post-fledging areas) and again in 2003 (of 12 post-fledging areas) (Table 3).

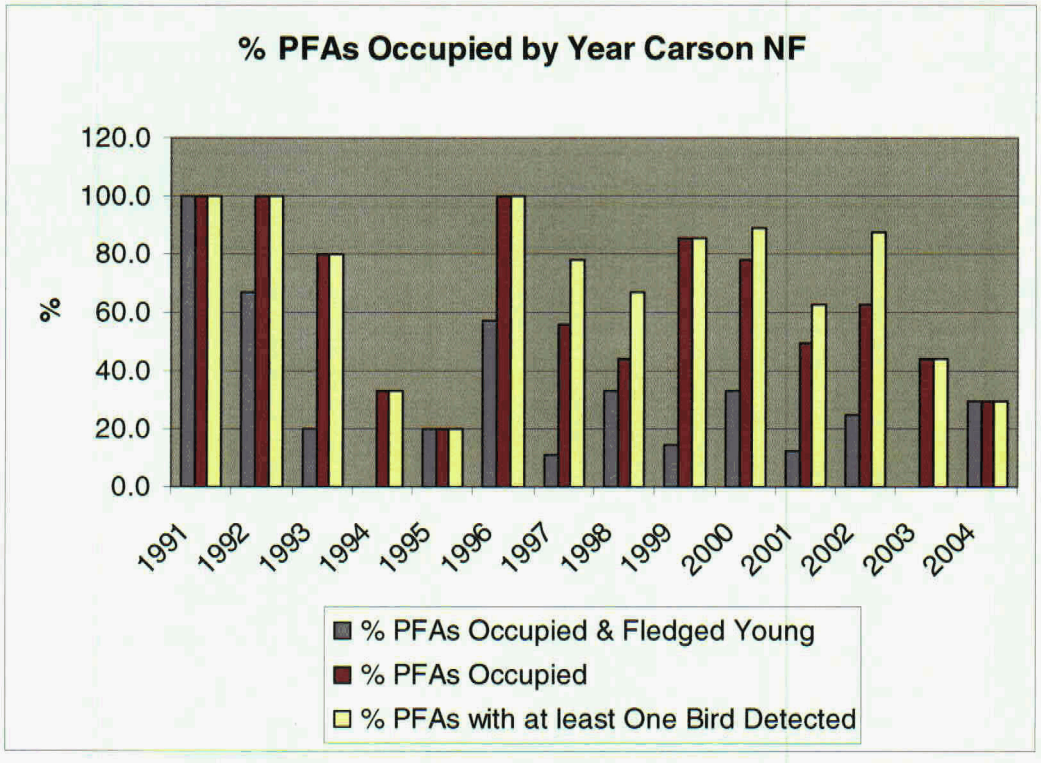
Carson Table 1



Carson Table 2



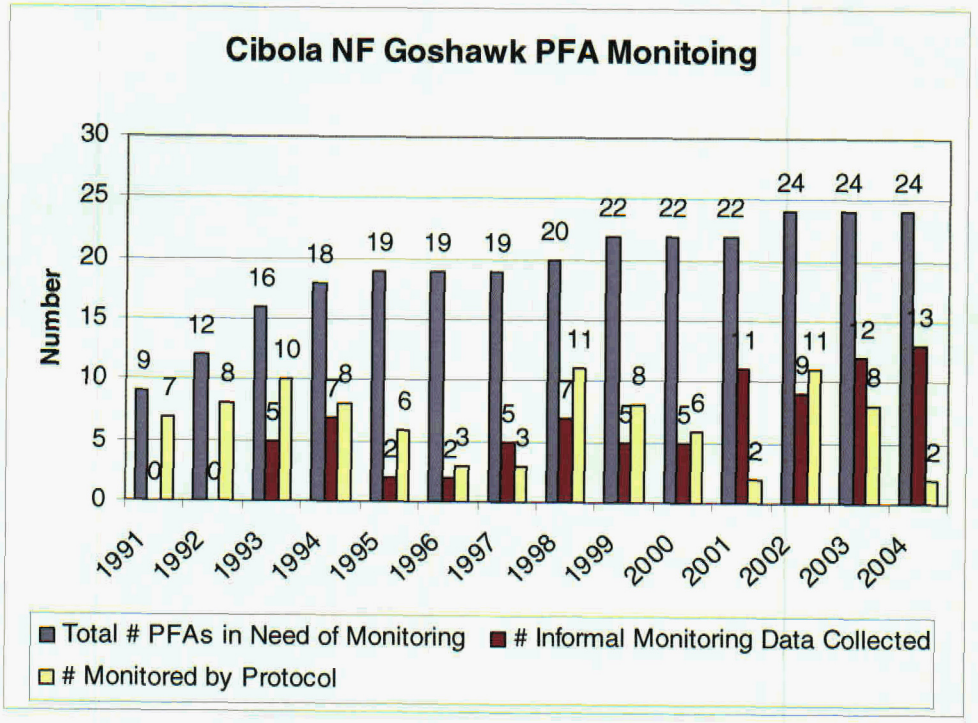
Carson Table 3



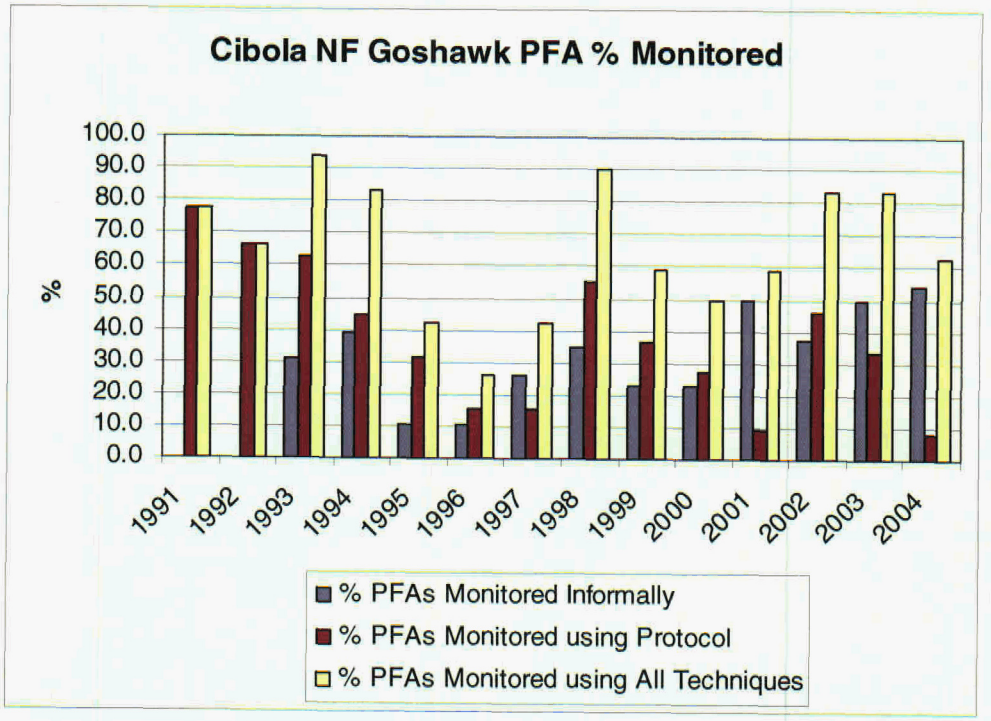
Cibola National Forest:

The number of designated post-fledging areas on the Cibola National Forest has risen from 9 in 1991 to 24 in 2004. The number of post-fledging areas monitored to protocol dropped in the late 1990's and has risen again especially in 2002 and 2003. Table 3 shows a widely varying but overall decreasing trend in the number of occupied nests that fledged young, the number of nests occupied and the number of nests with a detection of at least one bird. In 1992, 8 of 12 post-fledging areas produced young while no young were produced in 1995. Two of 24 post-fledging areas produced young in 2004.

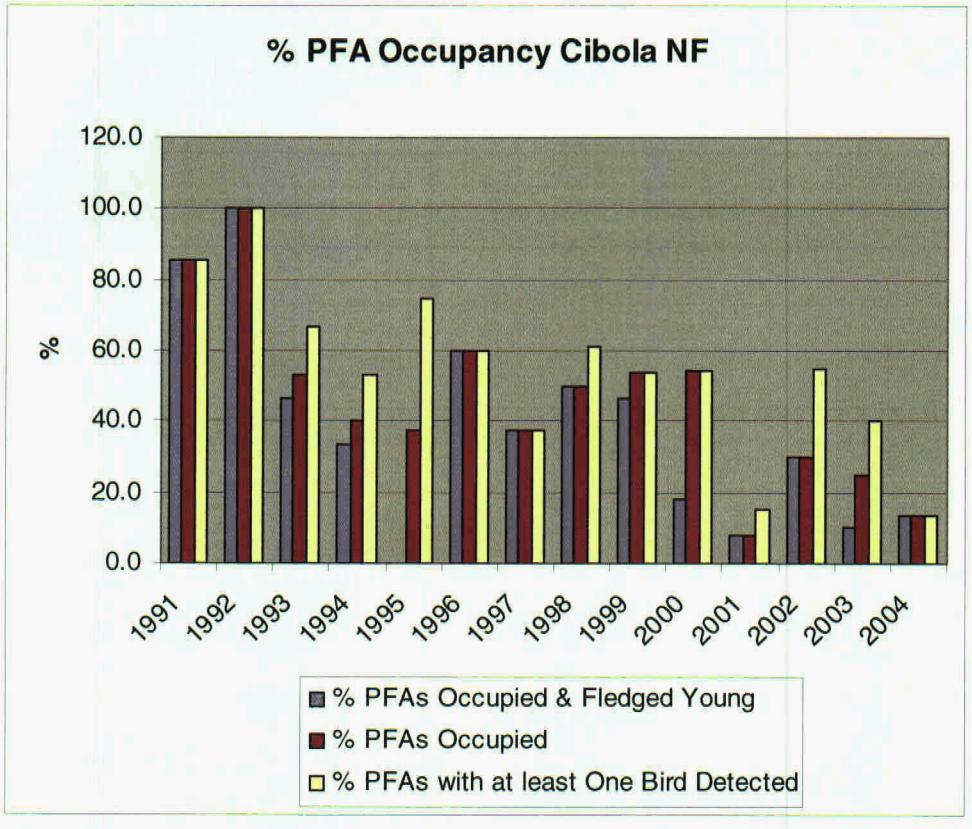
Cibola Table 1



Cibola Table 2



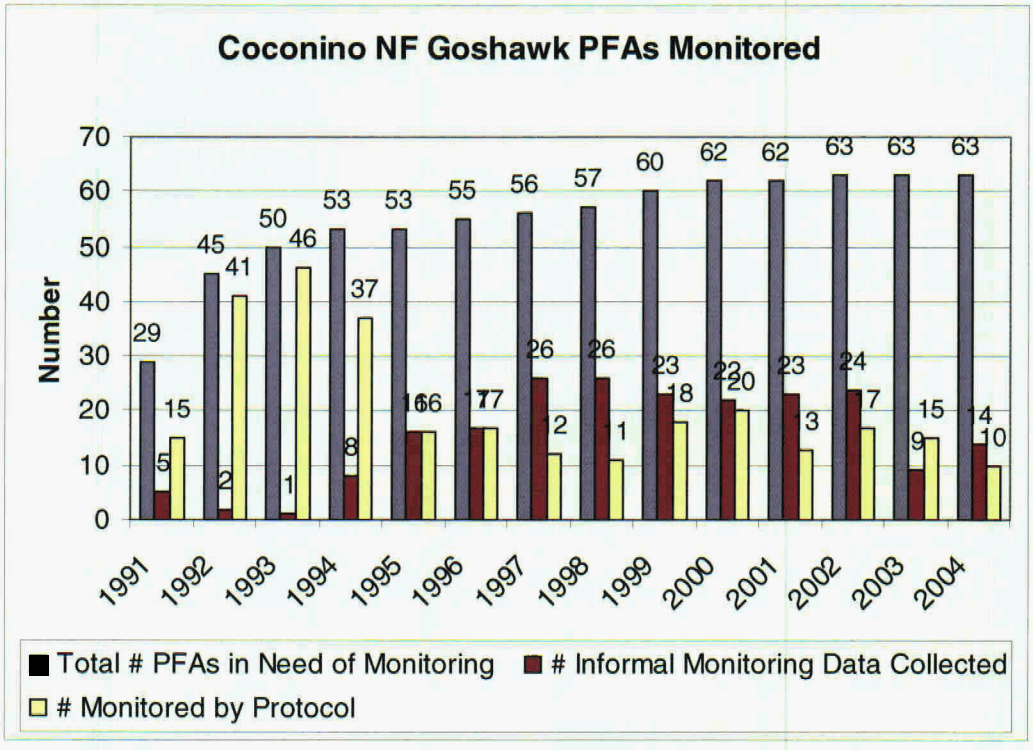
Cibola Table 3



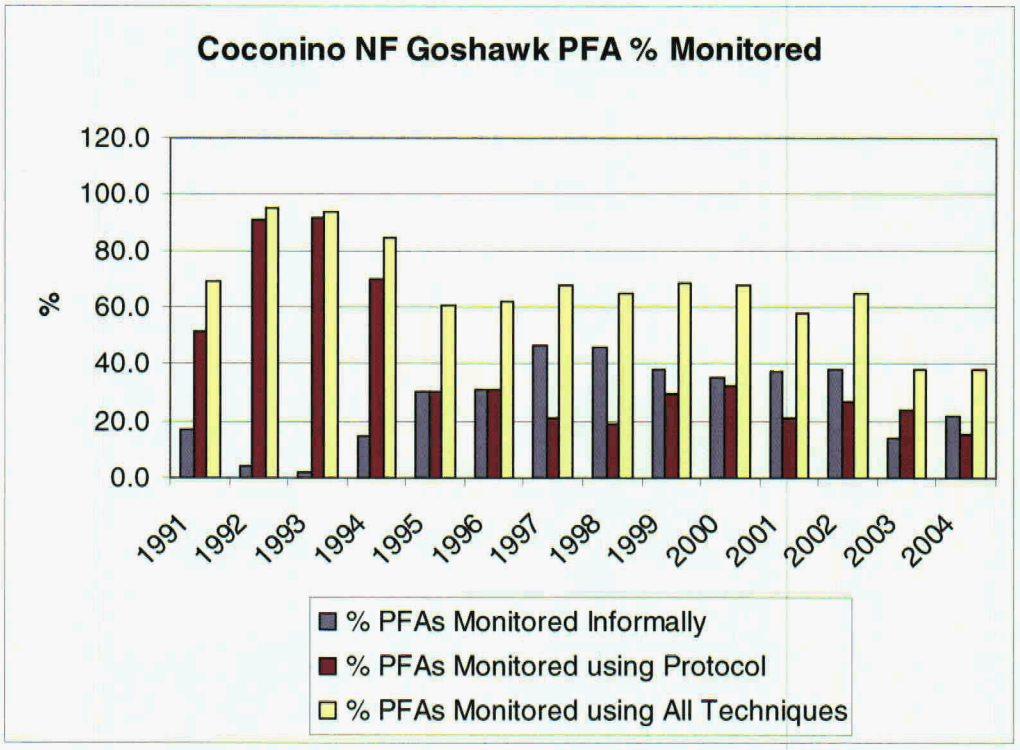
Coconino National Forest:

The number of designated post-fledging areas on the Coconino National Forest has risen from 29 in 1991 to 63 in 2004 (Table 1). The number of post-fledging areas monitored to protocol decreased since 1994 to 38% in 2004 (Table 2). Table 3 shows that overall the trend in the number of occupied nests and the number of number of nests with a detection of at least one bird have remained fairly stable over time. While 7 of 29 post-fledging areas fledged young in 1991, 14 of 60 post-fledging areas fledged young in 1999 and 3 of 63 post-fledging areas fledged young in 2004.

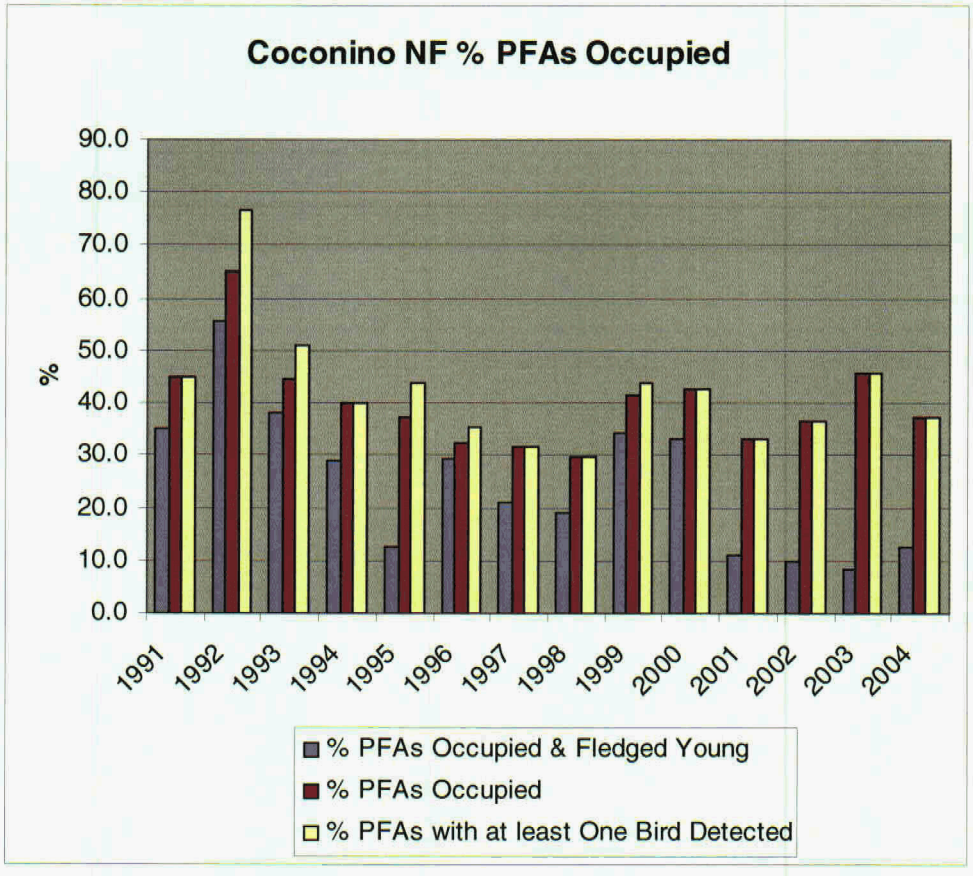
Coconino Table 1



Coconino Table 2



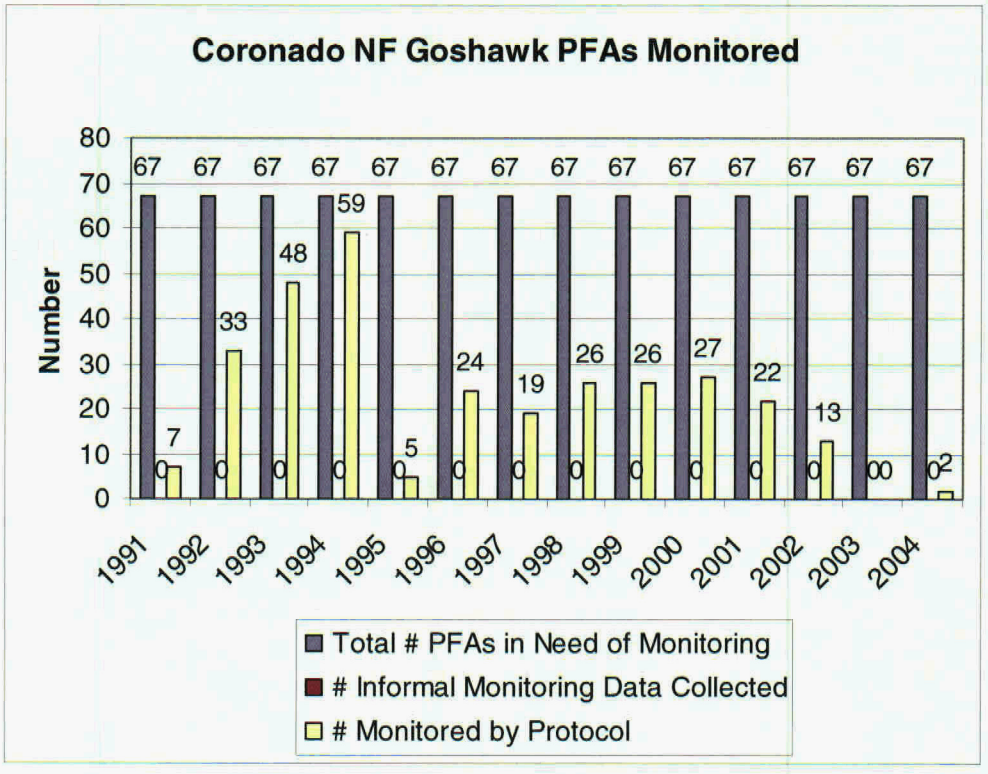
Coconino Table 3



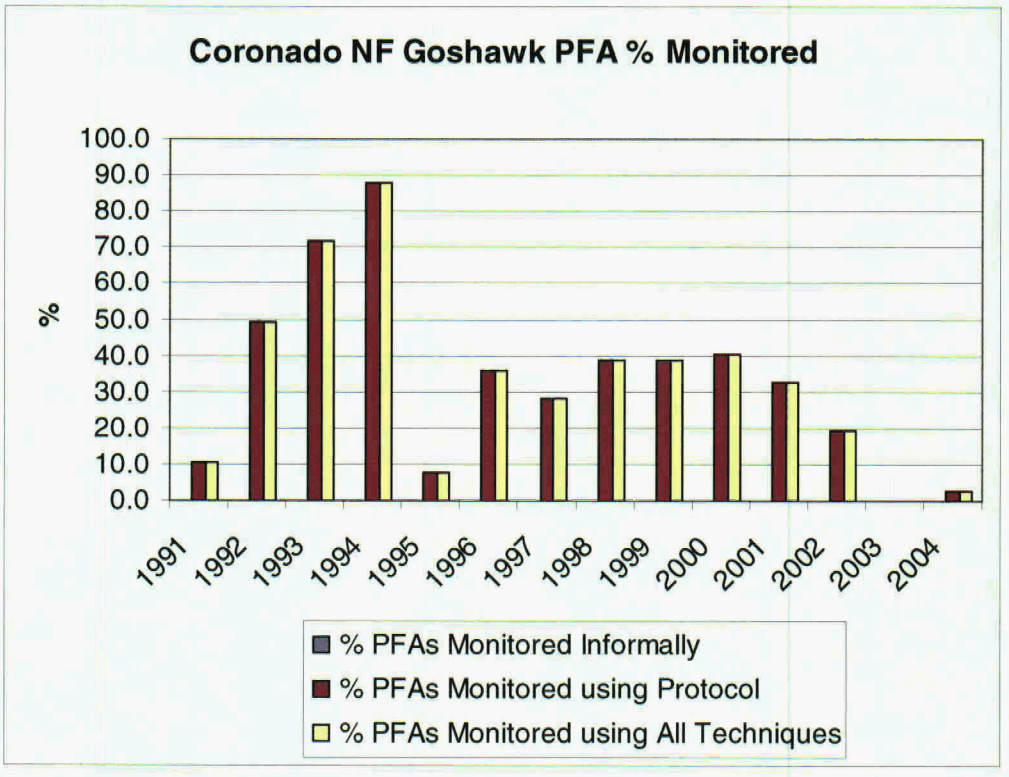
Coronado National Forest:

The number of designated post-fledging areas on the Coronado National Forest has not changed since 1991 (67) (Table 1). The number of post-fledging areas monitored peaked in 1994 and dropped to 0 in 2003 (Table 2). Table 3 shows that overall the trend in the number of occupied nests and the number of number of nests with a detection of at least one bird have remained fairly stable over time. While 0 of 67 post-fledging areas fledged young in 1991, 11 of 67 post-fledging areas fledged young in 1994 and 1 young was fledged in 2004.

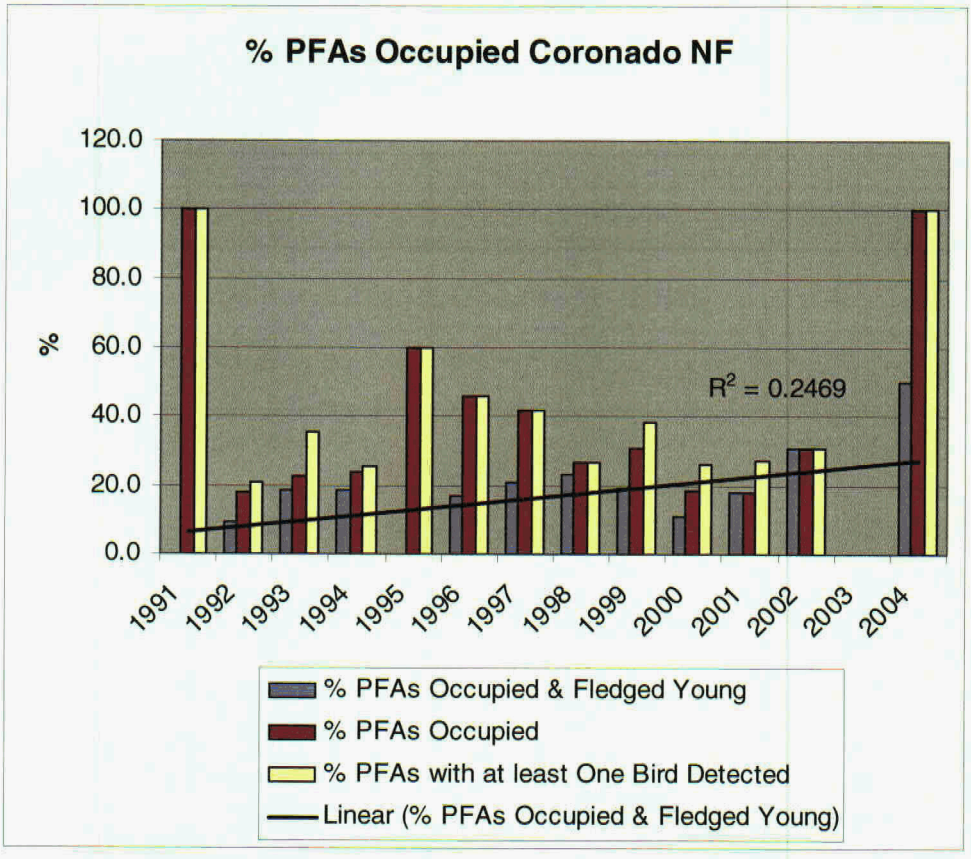
Coronado Table 1



Coronado Table 2



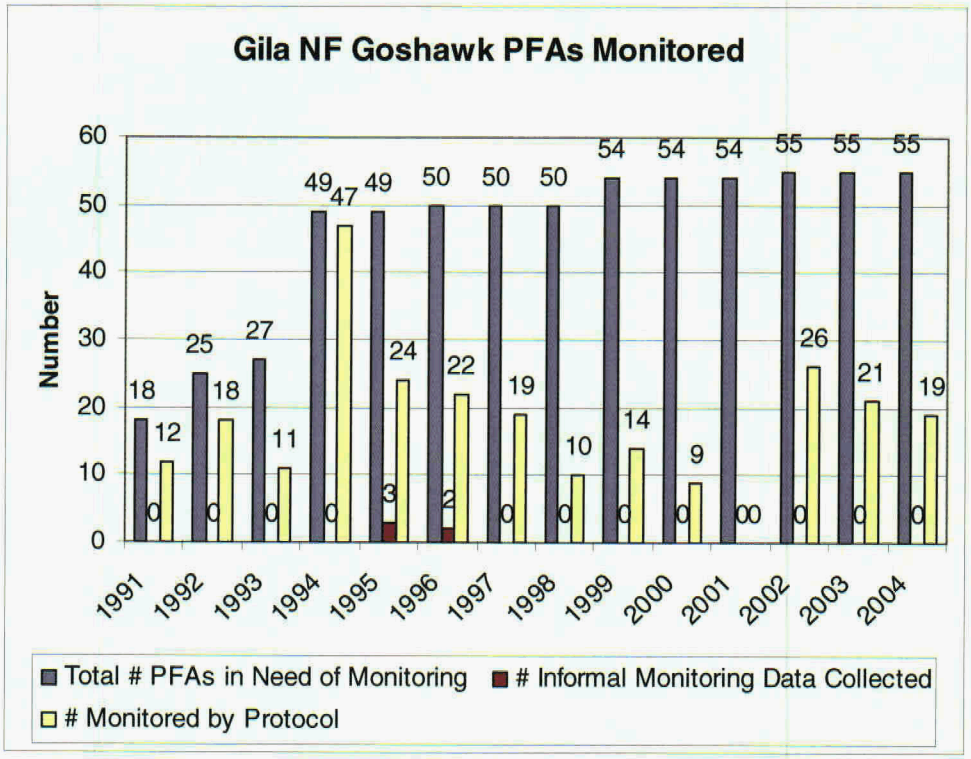
Coronado Table 3



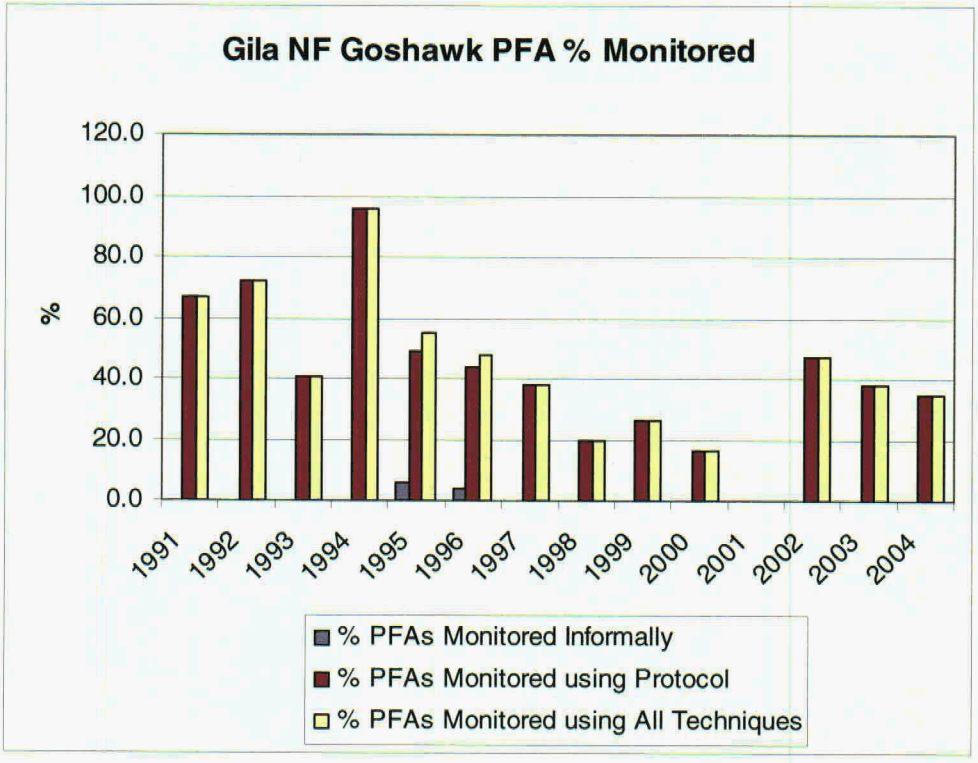
Gila National Forest:

The number of designated post-fledging areas on the Gila National Forest has risen from 18 in 1991 to 55 in 2004 (Table 1). The number of post-fledging areas monitored to protocol decreased form 98% in 1994 to zero in 2001 (Table 2). Table 3 shows several spikes in the number of occupied nests that fledged young, 1991-92, 1998-99 and rebounding again in 2004. In 1991, 7 of 18 post-fledging areas produced young while no young were produced in 2001. Five of 55 post-fledging areas fledged young in 2004.

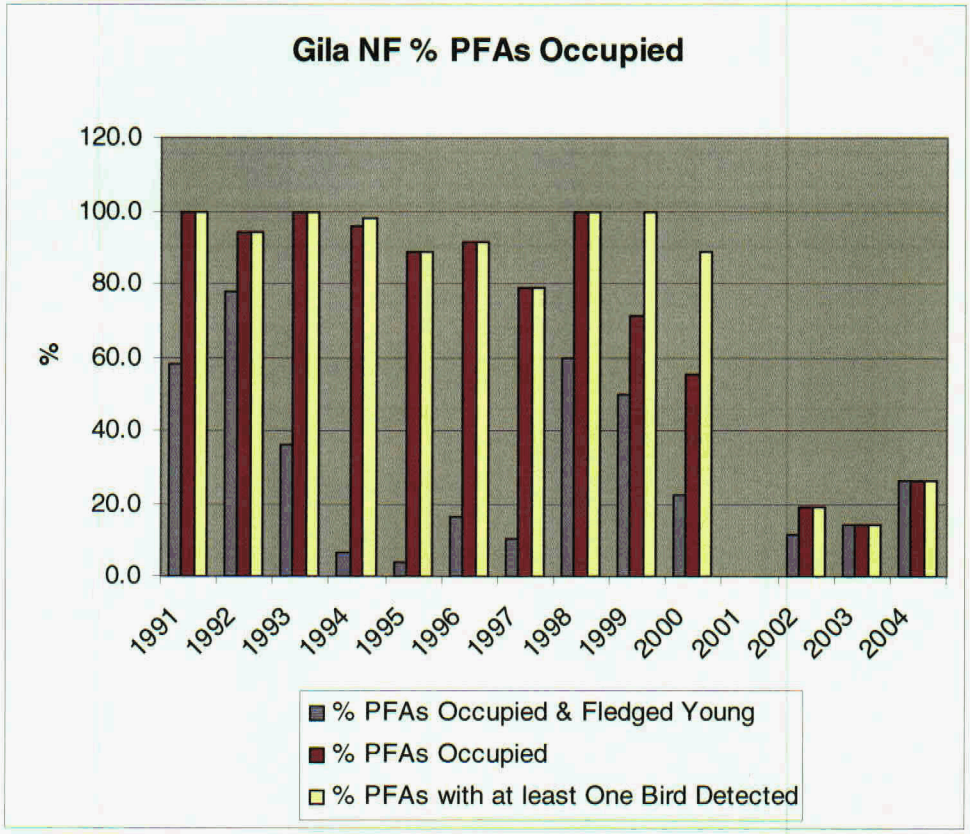
Gila Table 1



Gila Table 2



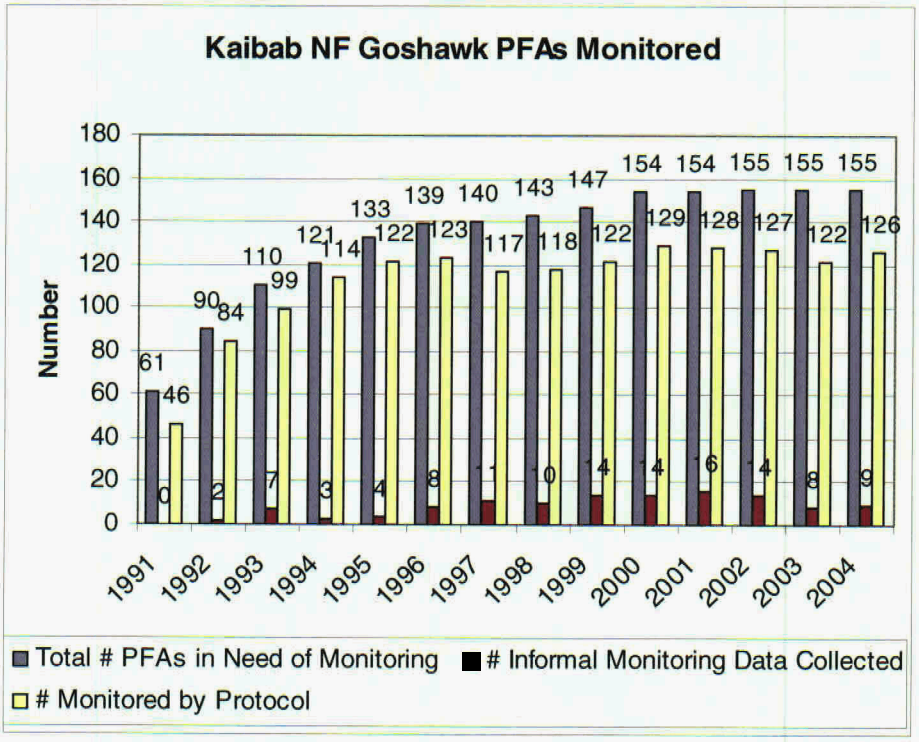
Gila Table 3



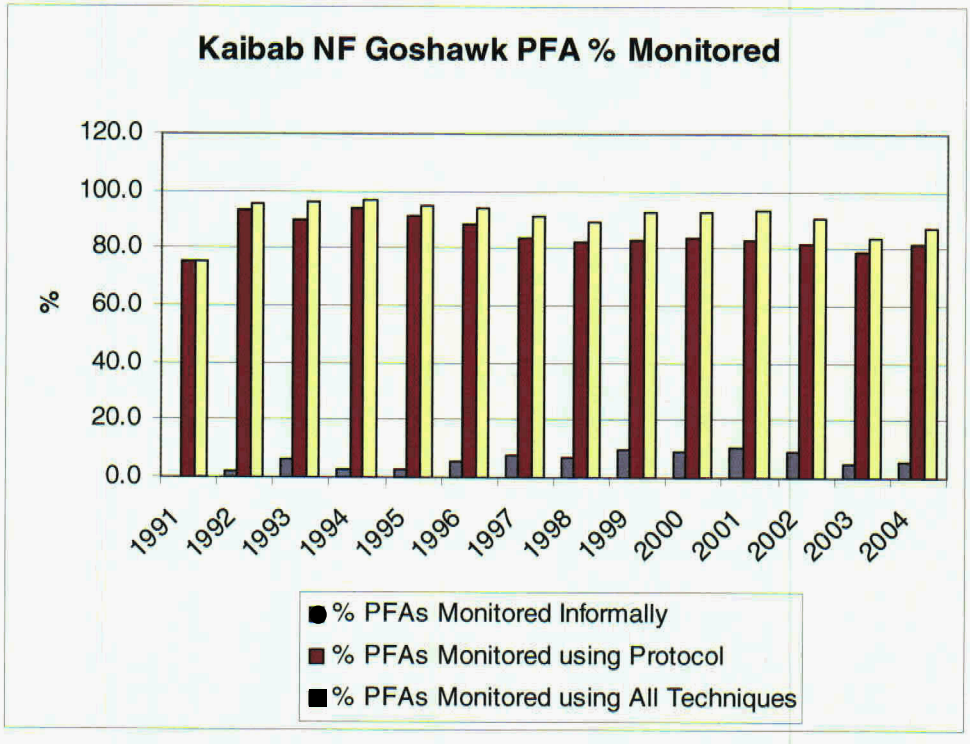
Kaibab National Forest:

The number of designated post-fledging areas on the Kaibab National Forest has risen from 61 in 1991 to 155 in 2004 (Table 1). From 1991 to 2004 the number of post-fledging areas monitored to l has remained fairly constant and at a high level (Table 2). Table 3 shows a decreasing trend in the number of occupied nests that fledged young, the number of nests occupied and the number of nests with a detection of at least one bird. In 1991, 39 of 61 post-fledging areas fledged young while only 7 of 155 post-fledging areas fledged young in 2003. Goshawk productivity rebounded in 2004 with 155 post-fledging areas fledging 40 young.

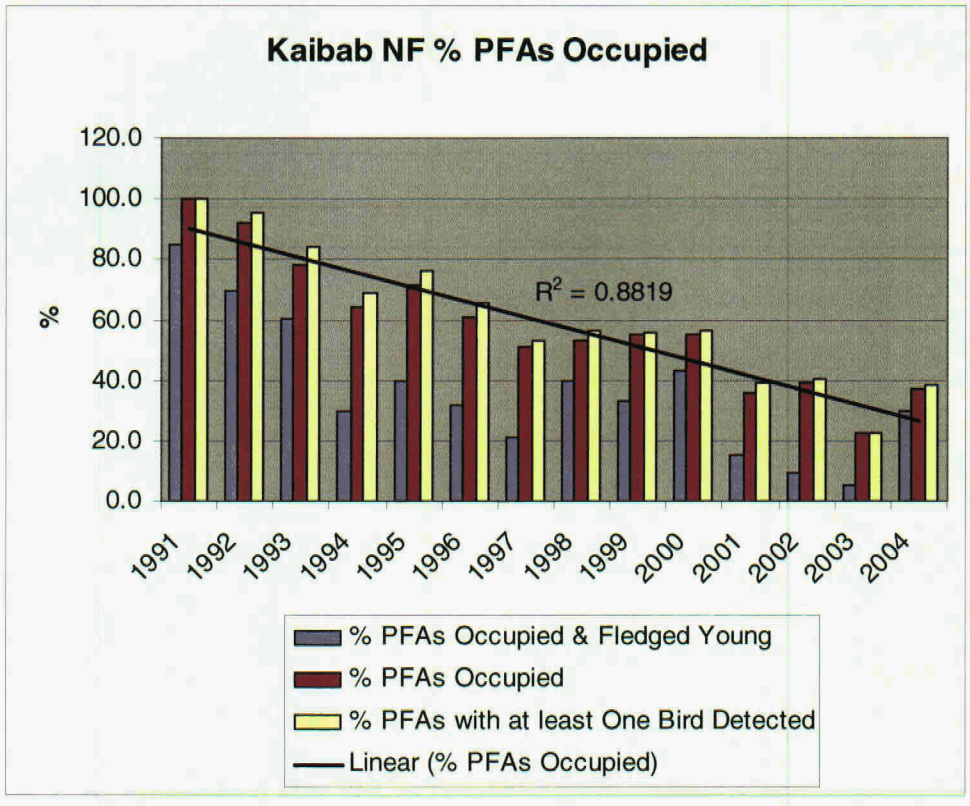
Kaibab Table 1



Kaibab Table 2



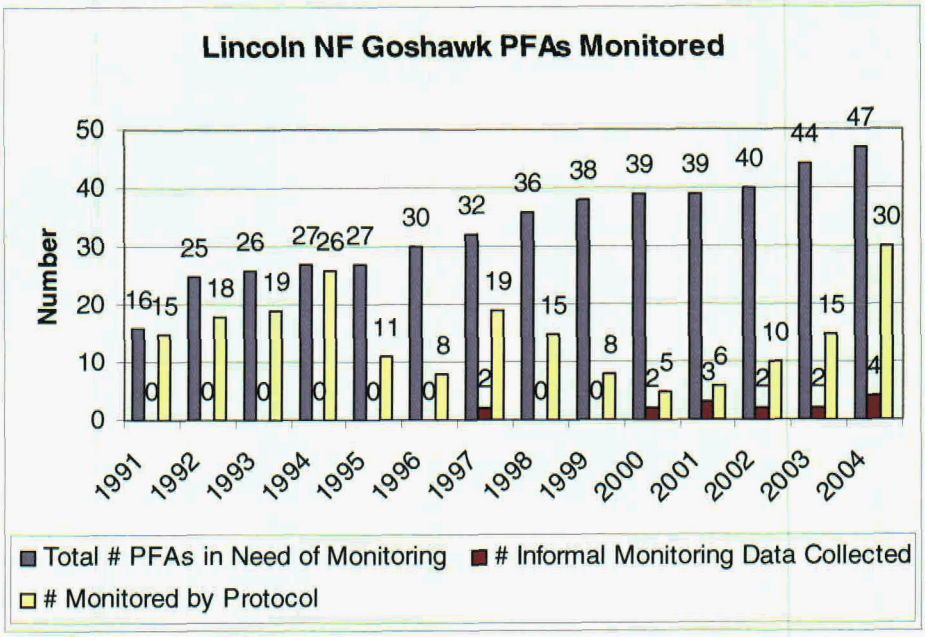
Kaibab Table 3



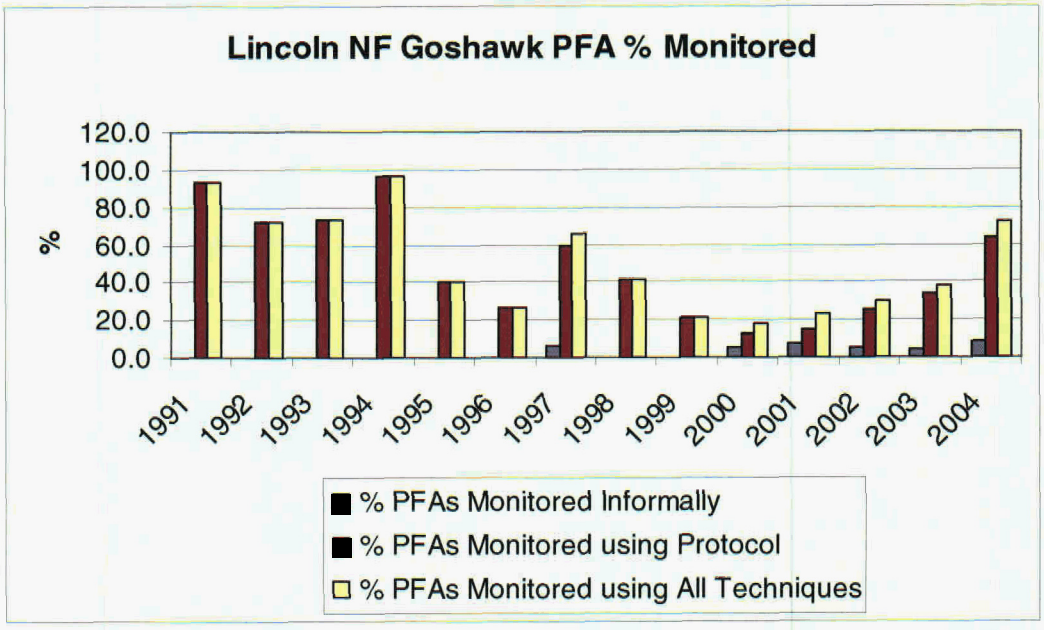
Lincoln National Forest:

The number of designated post-fledging areas on the Lincoln National Forest has risen from 16 in 1991 to 47 in 2004 (Table 1). The number of post-fledging areas monitored to protocol peaked in 1994 (96%) and dropped to a low of 25% in 2000 (Table 2). Table 3 shows that a trend in the number of occupied nests that fledged young is basically absent. Nest Occupancy peaked in 1991-92, 1994-95 and dropped to zero in 2002. For eight of the 14 monitoring years the number of young fledged was zero and for three of the 14 years 2 young were fledged.

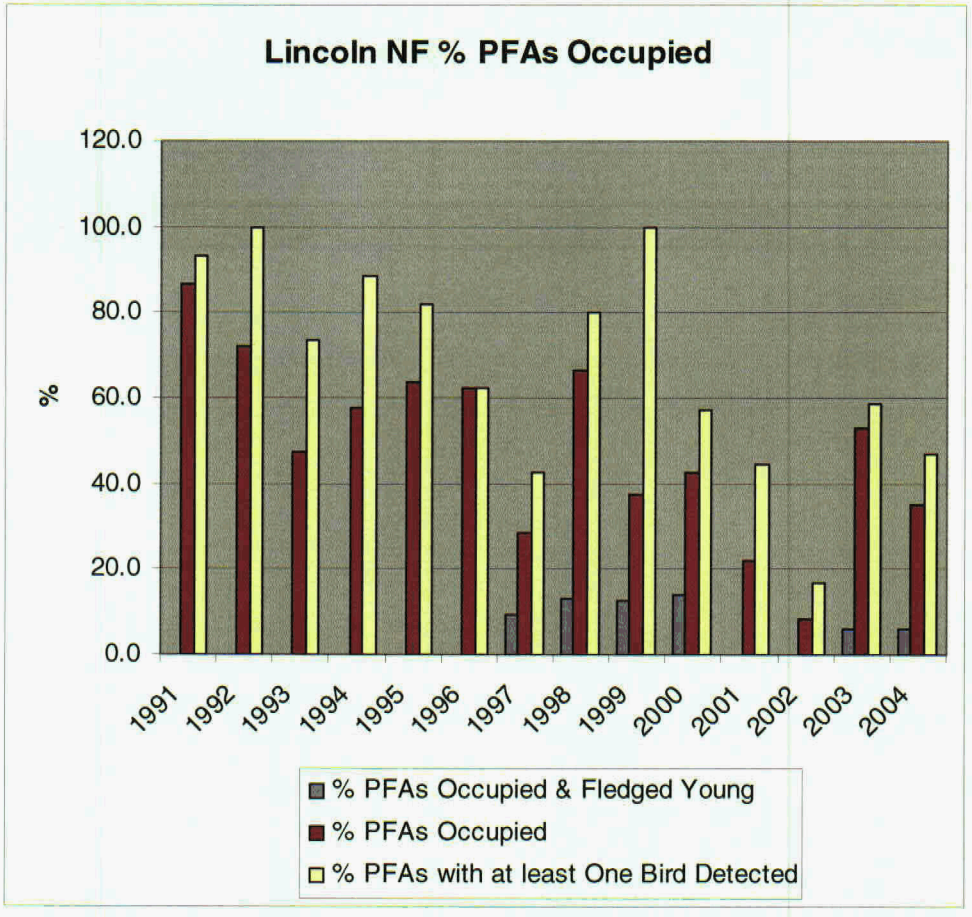
Lincoln Table 1



Lincoln Table 2



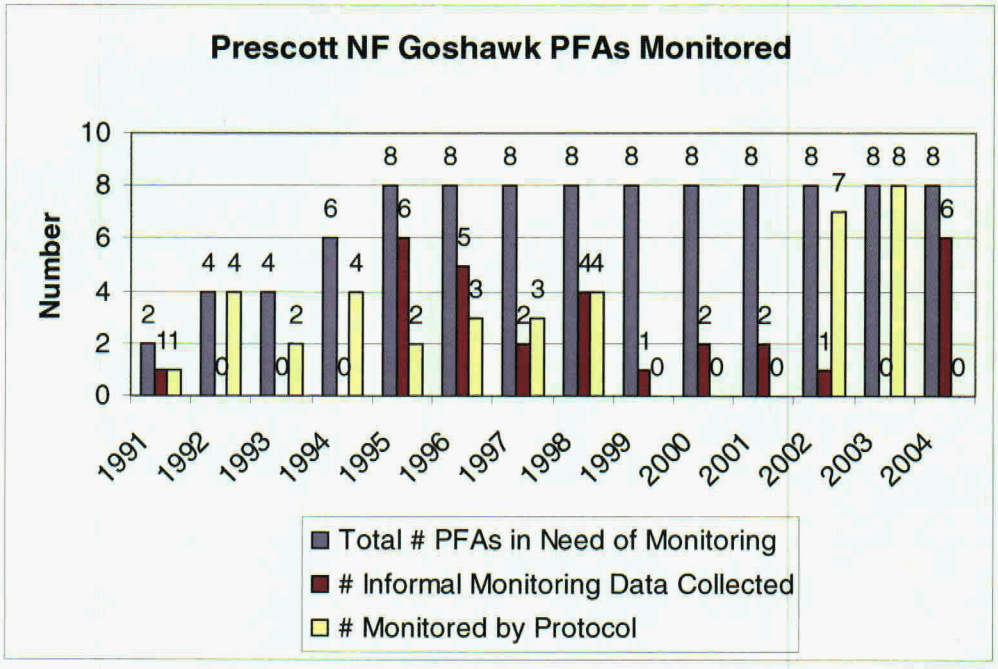
Lincoln Table 3



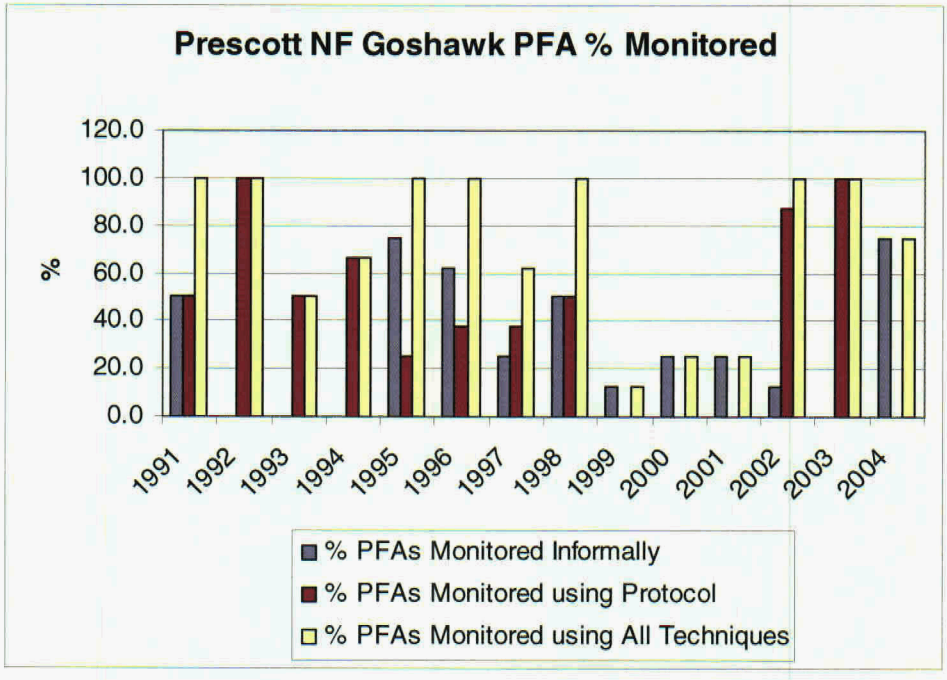
Prescott National Forest:

The number of designated post-fledging areas on the Prescott National Forest has risen from 2 in 1991 to 8 in 2004 (Table 1). With the exception of 3 years from 1999 to 2001 the Prescott National Forest has monitored a high percentage of their post-fledging areas. Table 3 shows a high number of occupied nests that fledged young in the early nineties, then decreased in the mid-1990s and dropped to zero by 1999. In 1992, 3 of 4 post-fledging areas fledged young while zero were fledged in 2004.

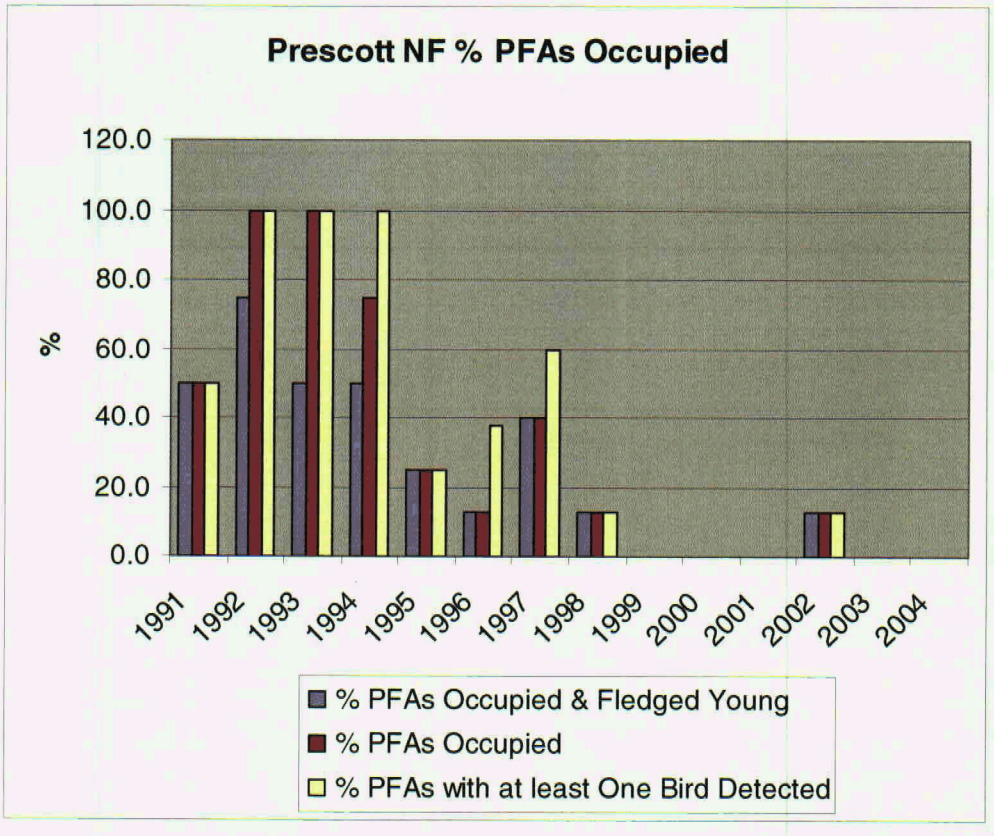
Prescott Table 1



Prescott Table 2



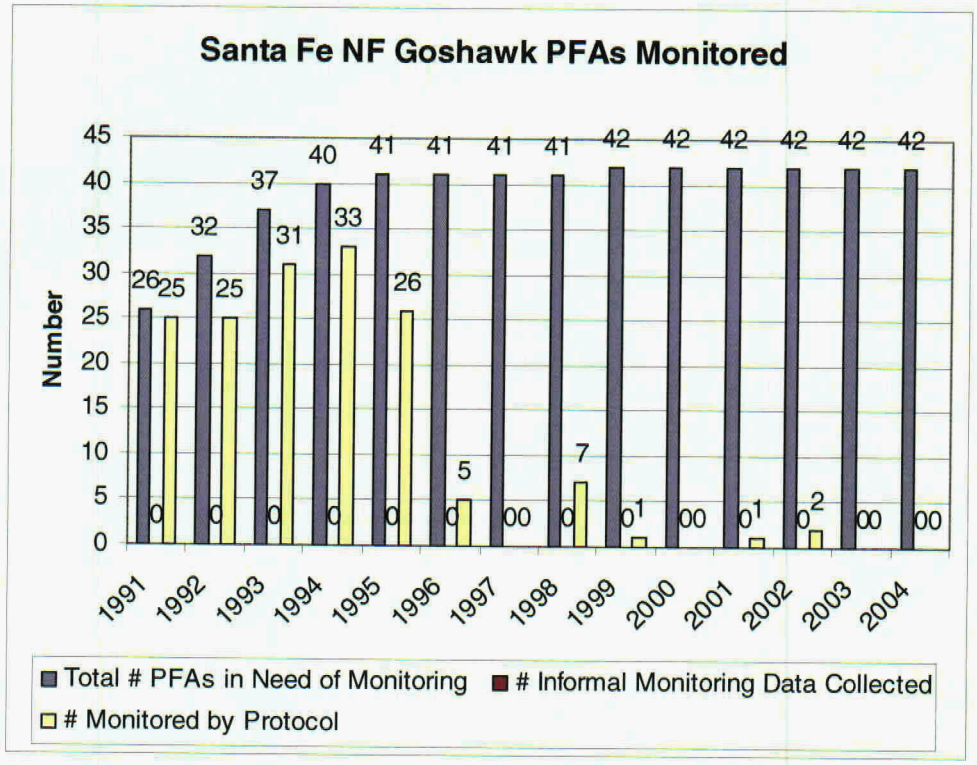
Prescott Table 3



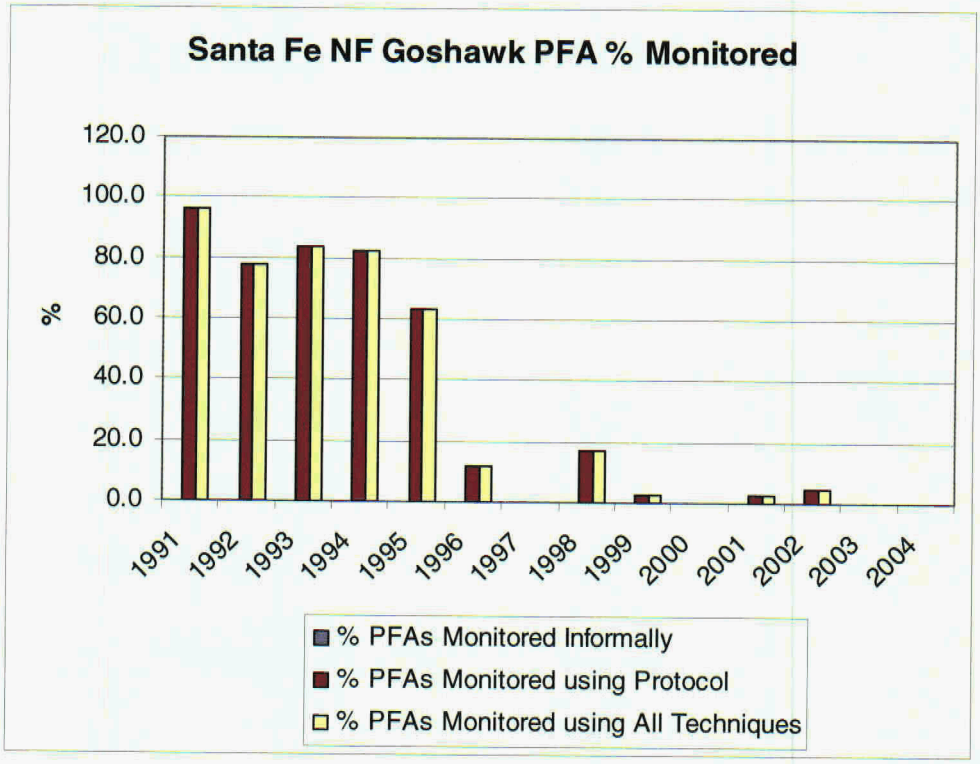
Santa Fe National Forest:

The number of designated post-fledging areas on the Santa Fe National Forest has risen from 26 in 1991 to 42 in 2004 (Table 1). The Santa Fe national Forest monitored a high percentage of their PFS in the early to mid-1990s then monitoring dropped to a low in the late 1990 and has been at zero in recent years (Table 2). Table 3 shows that for the years they monitored occupancy has been high 86% in 1991, 80% in 1996 and 45% in 2002. Twenty of 26 post-fledging areas fledged young in 1991, 11 of 37 post-fledging areas fledged young in 1993 and 6 of 41 post-fledging areas fledged young in 1995.

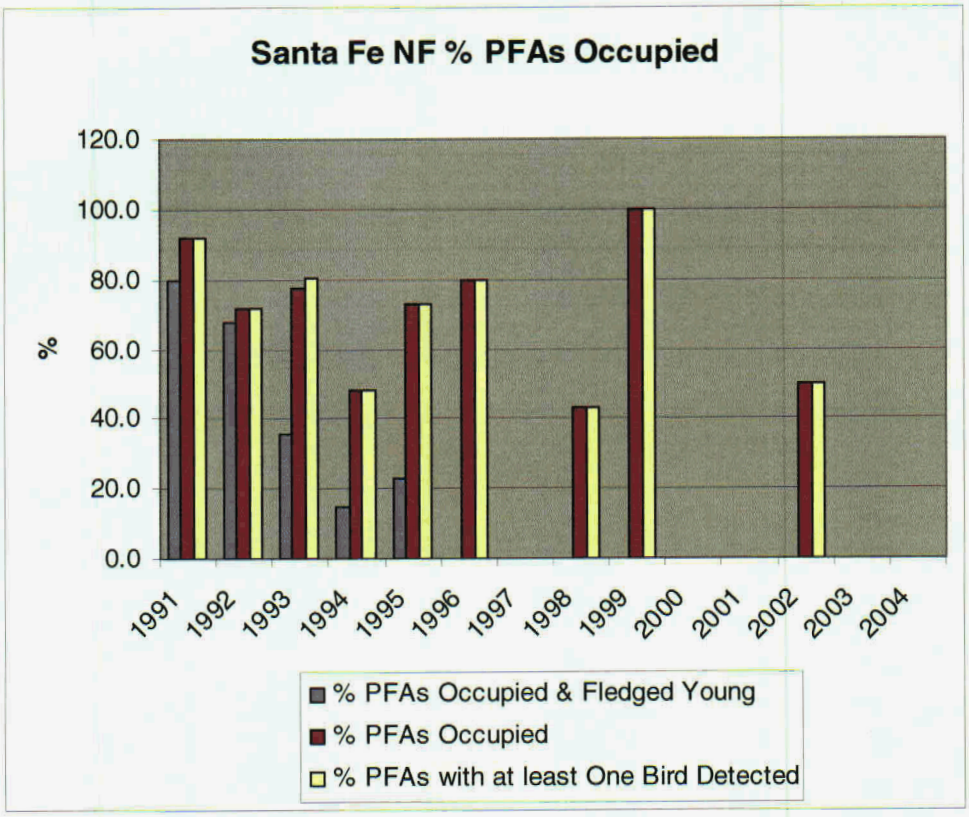
Santa Fe Table 1



Santa Fe Table 2



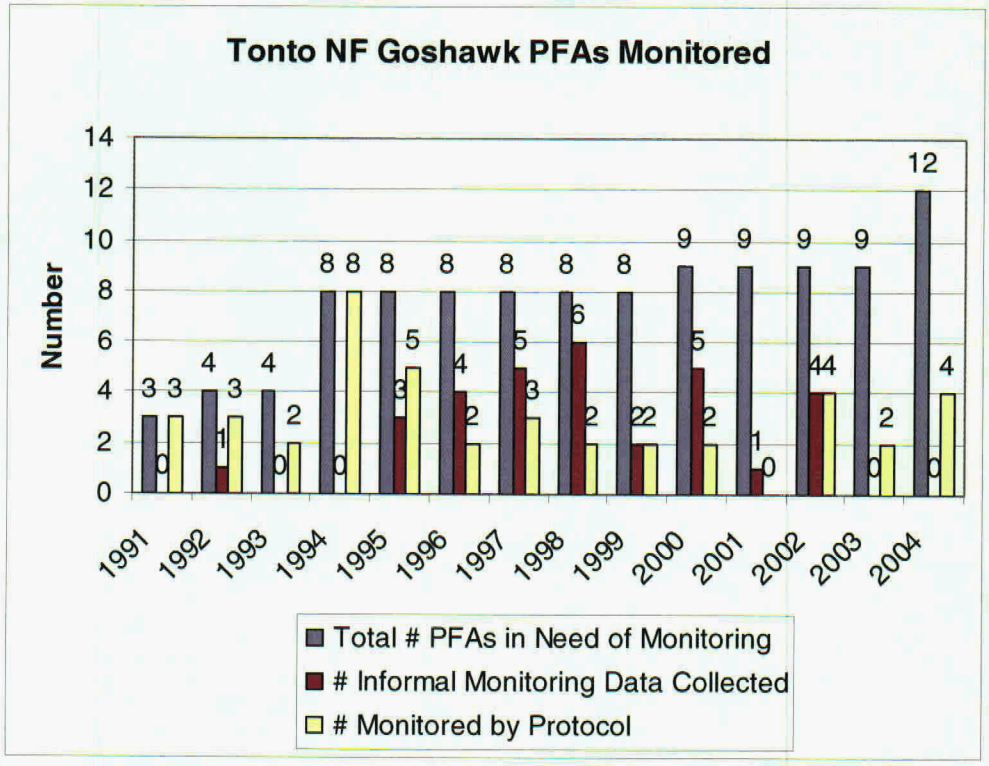
Santa Fe Table 3



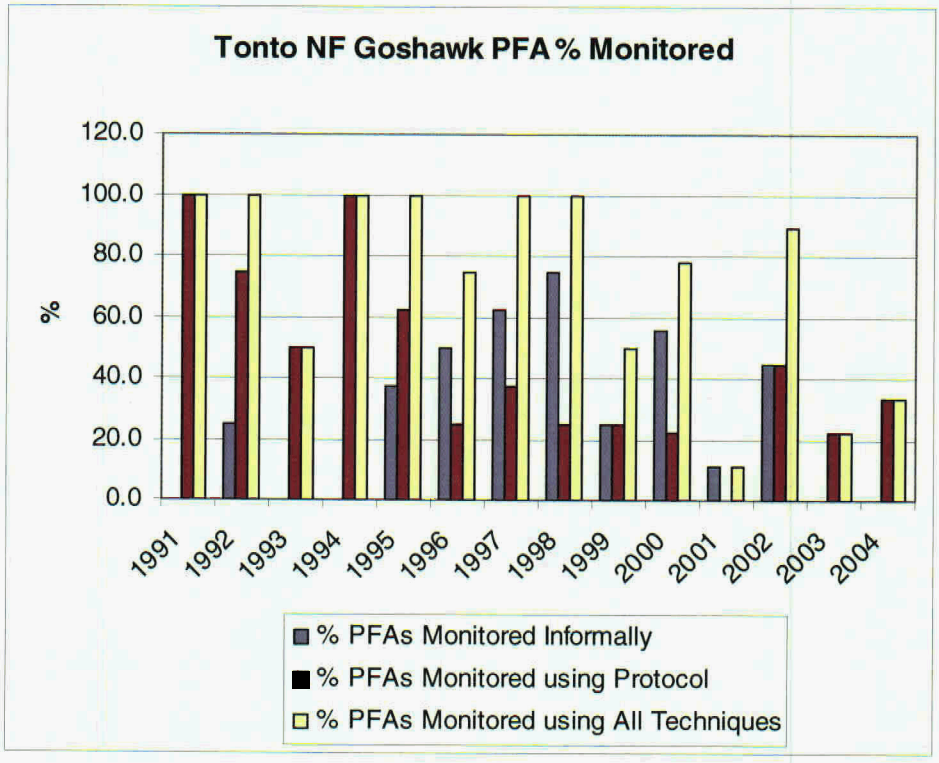
Tonto National Forest:

The number of designated post-fledging areas on the Tonto National Forest has risen from 3 in 1991 to 12 in 2004 (Table 1). The number of post-fledging areas monitored to protocol over time has (Table 2) varied widely. Table 3 shows that post-fledging area occupancy peaked in 1991, 1993 and again in 2004. In 1994, 3 of 3 post-fledging areas fledged young while zero were produced on 2001, 2002 and 2003. Two of 12 post-fledging areas fledged young in 2004.

Tonto Table 1



Tonto Table 2



Tonto Table 3